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World Agriculture

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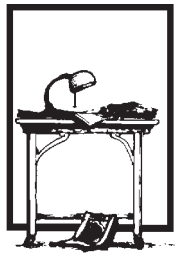
THE EDITOR'S FIELD



World Agriculture

This is the first issue of the *International Journal of Vegetable Science*. This is the third name for the journal that started as the *Journal of Vegetable Crop Production* which changed to the *Journal of Vegetable Science* and now is the *International Journal of Vegetable Science*. The first name was descriptive, perhaps too much so, since it was perceived that the only people who would publish in it were those who got dirty during the gathering of data. The second iteration was designed to broaden the venue so that others in vegetable science would feel comfortable in publishing in the journal. The third version expands the opportunity for publication to an international audience that is, in fact, already submitting manuscripts to the journal. This will require that authors take into consideration that the audience is not regional but international.

This activity has gotten me thinking about what the condition of agriculture is in the world. Urban centers are growing; agricultural land is being used for other things. In the state of Texas in the United States there are designations on roads that contain the designation "FM." The designation stands for "farm to market," with the roads originally constructed so that farmers in remote regions were better able to bring

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food and fiber to processing and consuming portions of the state. Some of those same roads now pass suburban housing developments where agricultural production is something that happened there at sometime in the past. The consumers of food have not only come to the producers, but the result of the expansion has paved over the farms as well.

In developing countries the interface between the urban dweller and the food producer is nowhere as defined as it is in western nations. In countries where the survival from day to day is a challenge necessity demands that the niceties of environmental concerns are second to obtaining enough food to get through the day. The use of "grey-water" and other questionable materials to provide food is a two-edged sword. The life-giving water may also contain life-taking pathogens. This is not a problem that is present only in developing countries. Recently in California the contamination of spinach with *E. coli* caused not only financial problems, but also killed consumers. There have been allegations that manure applied to one field, not to crops, but to soil, somehow contributed to contamination in other fields.

There are other concerns in the world. Consumers in countries with large populations are demanding more and more nutritious food. However, these same countries, although able to make great strides in the short term, will likely run into the problems of insufficient water and land, and too many mouths to feed. Not only are these people wanting improved nutrition, they also need fuel for vehicles to travel to the market or to jobs. Petroleum-based fuels are finite with technology currently in use. It may be possible in the future to constrict the eons of pressure and heat that squeezed prehistoric plants and animals into polluting hydrocarbons, but it is reasonable to believe that it is not going to happen in the near term. Even if new supplies of oil are found it is almost guaranteed that they will be difficult, and expensive, to extract.

There are processes to convert oils, or sugars, in some crops to fuels that can be burned in internal combustion engines. Let us assume that these processes are efficient enough to replace petroleum-based fuels. The crops will have to be grown on soil. To do that will cause established cropping patterns to be changed. Agronomic decisions will have to be made to make sure that crops grown to propel vehicles, and run industry, are not taking extensive amounts of land from food crops. There are ways to do this and consideration of these methods should be explored.

The methodology of crop production for the last 60 years in industrialized countries has relied on synthetic fertilizer and pesticides applied with machinery propelled by internal combustion engines over vast acreages. This type of agriculture, which has earned the term conventional, has propelled the industrialized countries, and especially the United States, to deliver quantities of food and fiber that provided the underpinnings for unprecedented industrial growth supported by plentiful and affordable quantities of food. However, there are those who question the cost to the environment that conventional agriculture has imposed.

It seems that a response to this problem has been to examine prodution methods other than "conventional agriculture," and this methodology has been termed "organic production." So what is "organic agriculture?" In the United States these practices have been codified at the federal level in what has been designated the National Organic Program. This is not the case in other parts of the world. In some locations raw manure is used without composting which can potentially inoculate crops with life-threatening pathogens. This type of practice can put people in danger, and will not let the produce be shipped to countries that have prohibitions against this type of usage of manure.

Now is not the time to throw up your hands and lament that "there is nothing to be done." In fact agriculture has made strides. There is a better understanding about how plants interact with the environment, how man can intercede to improve conditions to improve plant health, and how the shelf life of harvested crops can be extended. It is not that we cannot produce sufficient food to feed the global population; the problem is the distribution of the harvest. When a catastrophe hits there are pictures of bags of staples, flour, rice, milk powder being off-loaded from aircraft. In grocery stores in the industrial west there is a variety of types of prepackaged food. The kind where water or milk is added and the type of food that used to take hours, now takes minutes to prepare. I wonder if any of this type of food ever reaches those areas of need. I am convinced that the agricultural community can meet any challenge and ask the "what if" question that has led to, and continues to lead to innovations that will improve the production and distribution of food to an increasing world population.

Reviewers of Submitted Manuscripts

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